Gigabit LC Single-Mode Optical Module



Overview

This data sheet describes the benefits, specifications, and ordering information for the Cisco SFP Modules for Gigabit Ethernet Applications.

Key Takeaways

A Gigabit Single-Mode Optical Module with LC interface is an SFP transceiver that supports 1 Gbps data rates over single-mode fiber, typically using a 1310nm wavelength and LC duplex connectors for distances up to 20 km or more.

Overview

Gigabit Single-

Mode SFP modules are hot-swappable transceivers designed to connect network switches, routers, or media converters to single-mode fiber networks. They use LC-type duplex connectors, which are compact and widely adopted for high-density fiber installations. These modules are compatible with MSA-compliant SFP slots, allowing interoperability across different vendors, including Cisco and Intellinet devices.

Key Specifications

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Data Rate: 1 Gbps (Gigabit Ethernet)Fiber Type: Single-mode fiber (SMF)Wavelength: Typically 1310 nm for standard 1000BASE-LX/LH modules Connector Type: LC duplexMaximum Distance: Up to 20 km for industrial modules; standard modules can reach 10 km or more depending on fiber quality Hot-Pluggable: Yes, allowing installation or replacement without powering down the network device Industrial Grade: Some modules, like TRENDnet TI-MGBS20, support extreme temperatures (-40° to 85°C) for industrial environments ApplicationsEnterprise Networks: Connecting switches and routers across buildings or campusesData Centers: High-density fiber connections with LC interfacesIndustrial Networks: Ruggedized modules for manufacturing or outdoor environmentsLong-Distance Links: Campus or metropolitan area networks requiring single-mode fiber spans up to 20 kmAdvantagesFlexibility: Can mix and match with copper or multimode SFPs on a port-by-port basis Reliability: Metal housing reduces electromagnetic interference and enhances durability Ease of Use: Supports plug-and-play installation with automatic recognition by compatible devices Digital Optical Monitoring (DOM): Some modules provide real-time monitoring of optical power and temperature Example ModulesTRENDnet TI-MGBS20: Industrial 1000Base-LX SFP, single-mode, LC duplex, 20 km reach, -40° to 85°C operating range H!

Fiber 1000BASE-LX/LH SFP: Standard single-mode LC module for data centers and enterprise networks Intellinet SFP Transceiver: MSA-compliant, compatible with Cisco GLC-LH-SM-20, hot-swappable, 1 Gbps These modules are ideal for high-speed, long-distance fiber connections where reliability, compact form factor, and vendor interoperability are critical.

Article Content

Cisco SFP Modules for Gigabit Ethernet Applications

This data sheet describes the benefits, specifications, and ordering information for the Cisco SFP Modules for Gigabit Ethernet Applications.

SFP Single Mode LC Module (20km)

Each TEG-MGBS20 single mode fiber SFP is equipped with a duplex LC fiber connection interface, supports high-speed data rates up to 1.25Gbps, and supports gigabit single mode fiber connections

1G SFP Transceivers | Mini-GBIC SFP Modules

FS gigabit ethernet transceiver solutions provide fibre or copper options including 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-T etc., from 100m to 160km, for 1G switches, routers, servers, NICs

Cisco SFP Modules for Gigabit Ethernet Applications

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The 1000BASE-LX/LH SFP, compatible with the IEEE 802.3z 1000BASE-LX standard, operates on standard single-mode fiber-optic link spans of up to 10 km and up to 550 m on any multimode fibers.

Gigabit Fiber SFP

THE IT PRO''S CHOICE: Designed and built for IT Professionals, this SFP module is backed for life (lifetime of module, not network switch), including free lifetime 24/5

1 Gigabit Singlemode SFP Fiber Optic Transceivers

Our 1 Gigabit Singlemode SFP Transceivers offer high-performance, reliable connectivity for singlemode fiber optic networks. These transceivers are

TP-LINK Omada Gigabit SFP Module, 1000Base-SX Multi-Mode

TP-LINK Omada Gigabit SFP Module, 1000Base-SX Multi-Mode Fiber Mini GBIC Module, Plug and Play, LC/UPC Interface, Up to 550/220m Distance (SM311LM)

Intellinet 10 Gigabit Fiber SFP + (LC) Single-Mode

10 Gigabit Fiber SFP + (LC) Single-Mode Optical Transceiver Module The new line of Intellinet Enhanced Small Form Factor Pluggable (SFP)

ipolex Gigabit Single-Mode LC Fiber to Ethernet Media ...

About this item Seamless Conversion of LC Fiber to Copper – This fiber optic to ethernet media converter kit includes a single mode 1000BASE-LX SFP module (1310nm), which enables you to convert 1000BASE-LX Duplex LC fiber to 10/100/1000 Base-T RJ-45 copper media or vice versa.

10 Gigabit Fiber SFP+ Optical Transceiver Module

10 Gigabit Connectivity Intellinet Network Solutions 10GBase-LR Fiber SFP+ Optical Transceiver Module, model 507479, is the right choice when it comes to connecting two buildings at 10 GbE

Gigabit single-mode single-core fiber optic module

Gigabit single-mode single-core optical fiber modules usually have the following specifications: multi-mode 550m, single-mode 15km, 40km, 80km, 120km, etc. In addition to the

H!Fiber 10G Single Mode SFP+ LC Module, 10GBase

10GBase-LR SFP+: 10 Gigabit Ethernet Single Mode SFP+ Module, 10 Gb/s, 1310nm wavelength, Duplex Dual LC, SMF, link single-mode

SFP LC Connector: Everything You Need to Know

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Learn everything you need to know about SFP LC connectors, modules, and transceivers for Gigabit Ethernet transmission over multimode fiber .

1G SFP LX 1310nm 20km Single mode Transceiver

Generic SFP-1G-LX Compatible 1000BASE-LX/LH SFP 1310nm 10km-20km Transceiver supports 1G gigabit Ethernet throughput over singlemode fiber

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

1000Base-LX SFP Module

MSA Uncoded SFP Module - 1000BASE-LX - 1GbE Single Mode Fiber (SMF) Optic Transceiver - 1GE Gigabit Ethernet SFP - LC 10km - 1310nm - DDM

What Are The Types Of Gigabit Optical Modules

The interface type of dual fiber optical module is duplex LC, and the optical fiber types are single-mode and multi-mode. Gigabit multimode optical module is used together with OM2

1G Multi-Mode Optical Module

SFP transceiver that supports 1G connections up to 550 m using multi-mode fiber with a duplex LC UPC connector.

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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